look-up table including at least one second ID code is stored in the power supply device **10**, and the second ID code is a VID code.

[0018] When the electronic device **3** is connected to the power supply device **10**, the electronic device **3** determines that the second ID code listed in the look-up table is matching with the first ID code or not, and sends a determined result to the power supply device **10**. Thereafter, the power supply device **10** provides the power to meet the requirements of the electronic device **3** according to the determined result. More particularly, when one of the second ID codes listed in the look-up table is matching with the first ID code, the electronic device **3** makes the power supply device **10** provide a first power to meet the requirement of the electronic device **3** in the charging operation. The first power generated by the power supply device **10** is equal to the largest required-charging power of the electronic device **3**, and the electronic device **3** receives the first power and then performs a charging procedure. On the contrary, when all of the second ID codes listed in the look-up table do not match with the first ID code, the electronic device **3** makes the power supply device **10** provide a second power smaller than the first power or a third power smaller than the second power. The electronic device **3** receives the third power met the requirement of the normal operation, and does not perform the charging procedure. The electronic device **3** receives the second power and performs the charging procedure. It should be noted that the charging time when the electronic device **3** receives the second power is longer than that when the electronic device **3** receives the first power since the second power is smaller than the first power.

[0019] Reference is made to FIG. **2**, which is a circuit block diagram of a power supply device according to the first embodiment of the present invention. The power supply device **10** includes a power converting module **100**, a controlling module **120**, and a handshake module **140**. The power converting module **100** is electrically connected to the power source Vin, and is configured to convert the power provided by the power source Vin into the first power, the second power, or the third power required by the electronic device **3**.

[0020] The controlling module **120** is electrically connected to the power converting module **100** and configured to control the operation of the power converting module **100**, thus the first power, the second power, and the third power can be provided. The handshake module **140** is electrically connected to the controlling module **120** and includes a memory unit **142** configured to store the look-up table.

[0021] In FIG. **2**, the power converting module **100** includes a power converting unit **102**, an input stage rectifier **104**, an output stage rectifier **106**, and an output stage filter **108**. The power converting unit **102** is, for example, a flyback converter. The power converting unit **102** receives the alternative current (AC) power provided by the power source Vin and controlling signals sent by the controlling module **120**, and converts the AC power to the first power, the second power, or the third power required by the electronic device **3**, where the first power, the second power, and the third power may be direct current (DC) powers.

[0022] The power converting unit **100** includes a transformer TR having a primary winding Wp and a secondary winding Ws coupled with each other. Specifically, the primary winding Wp and the secondary winding Ws of the transformer TR separates the power converting module **100** into an input stage **110** and an output stage **112** isolating from each other, the input stage **110** is connected to the power source Vin, and the output stage is connected to the electronic device **112**. The input stage rectifier **104** and the power converting unit **102** are arranged at the input stage **110**, and the output rectifier **106** and the output rectifier **108** are arranged at the output stage **112**.

[0023] The input rectifier **104** is electrically connected to the power source Vin and the power converting unit **102**, and is configured to rectify the AC power into an input stage pulsating DC power. The input rectifier **104** is, for example, a bridge rectifier. The power converting unit **102** receives the input stage pulsating DC power and is configured to conduct the input stage pulsating DC power to the primary winding Wp of the transformer TR.

[0024] The output stage rectifier **106** is electrically connected to the secondary winding Ws and is configured to rectify the power outputted from secondary winding Ws into an output stage pulsating DC power. The output stage rectifier **106** is, for example, a bridge rectifier. The output stage filter **108** is electrically connected to the output stage rectifier **106** and is configured to filtering the ripple of the output stage pulsating DC power and then sent a stable DC power to the electronic device **3** to meet the requirements of the electronic device **3** during the normal operation and the charging operation.

[0025] The power converting module **100** may further include an electromagnetic interference filter **114** and an input stage filter **116**. The electromagnetic interference filter **114** and the input stage filter **116** are arranged at the input stage **110**. The electromagnetic interference filter **114** is arranged between the power source Vin and the input rectifier **104** and electrically connected thereto. The electromagnetic interference filter is configured to filter the electromagnetic noise within the AC power provided by the power source Vin. The input stage rectifier **104** is configured to rectify the AC power which the electromagnetic noise is filtered to the input stage pulsating DC power. The input stage filter **104** is arranged between the input stage rectifier **104** and the power converting unit **102** and electrically connected thereto. The input stage filter **104** is configured to filter the noise within the input stage pulsating DC power.

[0026] The transformer TR further includes an auxiliary winding Wa isolating from the primary winding Wp and the secondary winding Ws, and coupled with the primary winding Wp. The auxiliary winding Wa is electrically connected to the controlling module **120** and provides a power to meet the requirement of the controlling module **120**. It should be noted that the auxiliary winding Wa may be directly connected to the controlling module **120**, and provides the power to meet the requirement of the controlling module **120** by converting the power coupled from the primary winding Wp to the auxiliary winding Wa according winding turn ratio there between. However, the power converting module **100** may further includes a power regulator **118** arranged between the auxiliary winding Wa and the controlling unit **122**, the power regulator **118** receives the power conducted through the auxiliary winding Wa and outputs a regulated power to meet the requirement of the controlling module **120**.

[0027] The controlling module **120** includes a controlling unit **122**, a feedback unit **124**, and a protecting unit **126**. The controlling unit **122** is, for example, a pulse-width-modulator and electrically connected to the power converting unit